

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0123293; AI 150779; PER20070001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Mo-Dad Utilities, LLC
 Stone Hill Subdivision
 P.O. Box 790
 Denham Springs, LA 70727

- II. **PREPARED BY:** Ronda Burtch

- DATE PREPARED:** December 10, 2007

- III. **PERMIT ACTION:** Issue LPDES permit LA0123293, AI 150779; PER20070001

 LPDES application received: May 24, 2007

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Stone Hill Subdivision.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located at 119223 Fieldstone Drive in Denham Springs, Livingston Parish.

- D. The treatment facility consists of a 30,000 GPD extended aeration sewage treatment plant with hypo-chlorination.

- E. Outfall 001

Discharge Location: Latitude 90° 51' 26" North
 Longitude 30° 21' 44" West

Description: treated sanitary wastewater

Expected Flow: 75 homes x 400 gallons/day/home = 0.030 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

V. **RECEIVING WATERS:**

The discharge is by pipe into Willis Bayou, thence into Gray's Creek, thence into the Amite River in segment 040304 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

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The designated uses and degree of support for Segment 040304 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 040304	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040304 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040304 of the Lake Pontchartrain Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 27, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated May 25, 2007, to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response letter, dated July 3, 2007, stated that the facility as proposed will have no potential effects.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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For additional information, contact:

Ms. Ronda Burtch
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 040304, Gray's Creek, is listed on LDEQ's Final 2004 303(d) List as impaired for organic enrichment/low DO, pathogen indicators (total fecal coliform), nitrate/nitrite, sulfates, TDS, and phosphorus. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes of impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

Organic Enrichment/Low DO, Nitrate/Nitrite, and Phosphorus

LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.C.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through CBOD₅ and ammonia limitations. Compliance with the CBOD₅ and ammonia limitations should result in the control of pollutants, which will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the CBOD₅ and ammonia parameters as conducted by the permittee in accordance with Part I of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Part II of the final permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

LDEQ issued a declaratory ruling on April 29, 1996 stating, "That dissolved oxygen directly correlates with overall nutrient impact is a well-established biological and ecological principle. Thus, when the LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impacts." Nitrates/nitrites and phosphorus are considered nutrients. CBOD₅ and ammonia limitations are used as a method to control oxygen demanding substances (including organic materials and nutrients). By limiting the amount of CBOD₅ and ammonia to be discharged from this facility, LDEQ is providing for the control of oxygen demanding substances (organic material, nitrates/nitrites, and phosphorus) from the facility.

The discharge from this facility flows about 2.25 miles through Willis Bayou before confluence with Gray's Creek near the mouth of the Amite River. The southern portion of Gray's Creek, where Willis Bayou confluences with Gray's Creek, has substantially more flow compared to the northern part of Gray's Creek. Therefore, the Department believes that the following limitations will be sufficient to keep the discharge from further causing or contributing to the organic enrichment/low DO, nitrate/nitrite, and phosphorus impairments of this subsegment:

5/10 mg/l CBOD₅, 5/10 mg/l TSS, 2/4 mg/l Ammonia-Nitrogen, and 5 mg/l min. DO

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Pathogen Indicators (Total Fecal Coliform)

To protect the receiving waterbody against high levels of pathogenic organisms, fecal coliform limitations have been established in the permit.

Sulfates and TDS

Since the discharge from this facility travels about 2.25 miles through Willis Bayou before reaching the southern part of Gray's Creek (near the mouth of the Amite River), the Department believes that discharges will not further cause or contribute to the TDS and sulfate impairments of Gray's Creek. Therefore, limitations for TDS and sulfates will not be established in the permit at this time.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	N/A	5 mg/l	10 mg/l	Limits set through BPJ in order to address water quality impairments of the receiving stream and in accordance with the 1/22/03 Memo from Aguillard to Levy. (see attached)
TSS	N/A	5 mg/l	10 mg/l	Limits set through BPJ in order to address water quality impairments of the receiving stream and in accordance with the 1/22/03 Memo from Aguillard to Levy. (see attached)
Ammonia – Nitrogen	N/A	2 mg/l	4 mg/l	Limits set through BPJ in order to address water quality impairments of the receiving stream and in accordance with the 1/22/03 Memo from Aguillard to Levy. (see attached)
Dissolved Oxygen	N/A	5 mg/l	N/A	Limits set through BPJ in order to address water quality impairments of the receiving stream and in accordance with the 1/22/03 Memo from Aguillard to Levy. (see attached)

- * Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.
- ** This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

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Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

This is a new facility; therefore, there are no previous permits.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

There are no inspections on file for this facility as of December 10, 2007.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no OEC enforcement actions administered against this facility.

C) DMR Review

There are no DMRs on file for this facility as of December 10, 2007.

XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Pontchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

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At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.02 and 0.10 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	1/week	Measure
CBOD ₅	1/month	Grab
Total Suspended Solids	1/month	Grab
Ammonia-Nitrogen	1/month	Grab
Dissolved Oxygen	1/month	Grab
Fecal Coliform Bacteria	1/month	Grab
pH	1/month	Grab

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Mo-Dad Utilities, LLC, Stone Hill Subdivision, May 24, 2007.